



## RADIAL PISTON PUMPS Model : 1R3\*\*

Ref. No. D 04931  
Release 10 / 2020

ENGINEERING - 1 of 2

A Polyhydron Group Company

### Description

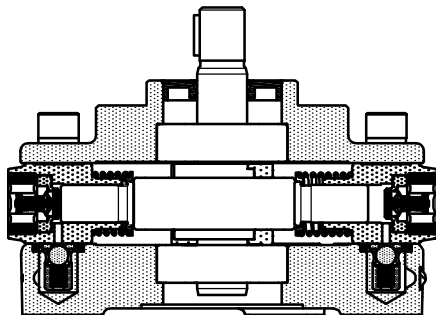
Pumps model 1R3\*\* are small, low weight, rugged oil immersed type Radial Piston Pumps. These pumps are valve controlled and there is no restriction on direction of rotation of the pump.

These are available with 7 displacements and 7 pressure ratings.

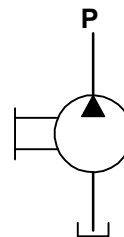
These pumps give fixed output per revolution of the shaft.



### Section



### Hydraulic symbol



### Technical specifications

Designation	:	1R is a basic radial piston pump group.
Design	:	Radial piston, valve controlled.
No. of elements	:	3.
Mounting	:	Face mounting.
Interface	:	Factory standard.
Direction of rotation	:	No restriction on directions of rotation
Connection	:	Suction port - Sucks oil directly from tank no suction port is provided. Delivery (port P) - G1/4 female.
Speed range	:	300 to 2000 r/min.
Flow and Pressure	:	Refer Table no.1
Hydraulic medium	:	Mineral oil.
Temperature range	:	-20°C to + 80°C.
Viscosity range	:	10 cSt to 100 cSt.
Fluid cleanliness required	:	ISO 4406 20/18/15 or better.
Mass	:	5.29 Kg.

**polyhydron pvt. ltd.**

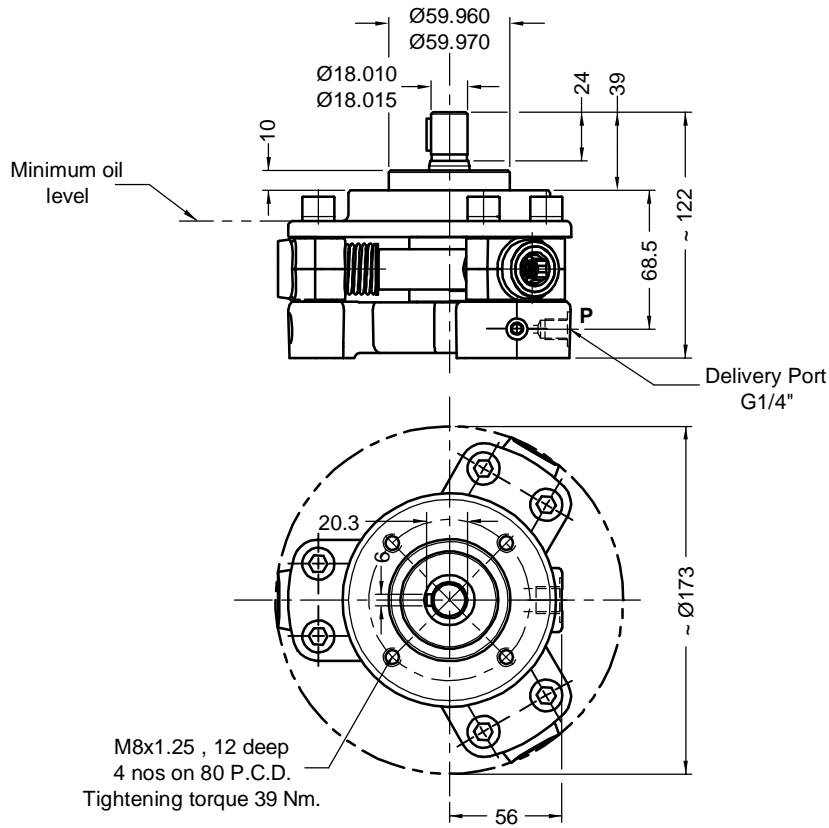
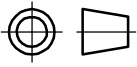
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**Unit dimensions**

Dimensions in mm.

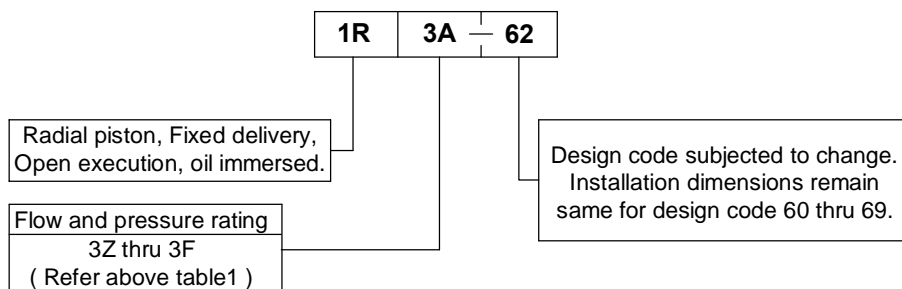


**Performance Table no. 1**

No. and type of Elements	Geometrical displacement in cm <sup>3</sup> /r	Pump output in l/min at 1450 r/min	Maximum operating pressure bar	Pressure in bar														
				50	100	150	200	250	300	350	400	450	500	550	600	650	700	
	cm <sup>3</sup> /r	l/min.	bar	Power required to drive the pump in kW														
<b>3 Z</b>	0.69	0.9	700	0.10	0.19	0.29	0.39	0.48	0.58	0.68	0.77	0.87	0.96	1.06	1.16	1.25	1.35	
<b>3 A</b>	1.20	1.6	550	0.17	0.34	0.51	0.69	0.86	1.03	1.20	1.37	1.54	1.71	1.89				
<b>3 B</b>	1.89	2.6	450	0.27	0.54	0.80	1.07	1.34	1.61	1.88	2.14	2.41						
<b>3 C</b>	2.70	3.7	350	0.39	0.77	1.16	1.54	1.93	2.32	2.70								
<b>3 D</b>	3.18	4.3	300	0.45	0.91	1.36	1.81	2.26	2.72									
<b>3 E</b>	3.69	5.0	250	0.53	1.05	1.58	2.10	2.63										
<b>3 F</b>	4.23	5.8	200	0.60	1.21	1.81	2.41											

1kW = 1.3410 hp

**Ordering code**



Note : For Bell housing refer Data sheet no. D 09035.